

Appl. No. 10/771,681
Amendment dated November 3, 2006
Response to 6/1/06 Office Action

Amendments to the Drawings:

The attached 2 sheet(s) of drawings reflect changes to Figure(s) 1-3 and replace the original sheet(s) of these Figure(s).

Attachments: One (1) Replacement Sheet(s)

One (1) Annotated Sheet(s) Showing Changes

REMARKS

Reconsideration of the above-identified application in view of the foregoing amendments and following remarks is respectfully requested.

A. Status of the Claims and Explanation of Amendments

Claims 1-2, and 8-34 were pending. By this paper, claims 1, 31, 21-22, 24-26, 30, 32 and 34 are amended and claims 9-10, 19-20, 23, 27-29, 31 and 33 are cancelled without prejudice or disclaimer.

The drawings were objected to in the office action. As requested, Figures 1-3 are submitted herewith including the legend “prior art.” [6/1/06 Office Action at p.2]. Claim 22 is amended to avoid the claim language which the Office Action requested be depicted in the figures. Claims 29 and 31 were cancelled, mooted the objection to the drawings regarding those claims. In sum, the drawings are believed to comply fully with USPTO regulations. Withdrawal of the drawing objections is requested.

Claim 1 is amended to clarify that the electroluminescent diodes and reflecting surface produce “a luminous beam having areas of range, breadth and comfort.” In addition, the luminous source is amended to recite “between 4 and 20 electroluminescent diodes emitting visible luminous rays” and that at least two of the electroluminescent diodes are “arranged relative to the reflecting surface to provide a range contribution, at least one of the electroluminescent diodes is arranged relative to the reflecting surface to provide a breadth contribution and at least one of the

electroluminescent diodes is arranged relative to the reflecting surface to provide a comfort contribution.” Similar amendments were made to independent claims 13 and 21.

In addition, claim 21 is amended to recite that “the element of the electroluminescent diode type and the element of the halogen-lamp type or of the discharge-lamp type are operated simultaneously to provide the luminous beam.”

Claim 22 is amended to avoid the recitation of “modules” that was objected to by the Office Action. Also, claims 22, 24-26, 30, 32 and 34 were amended to depend from claim 21 and/or to otherwise conform to claim 21.

No new matter will be added to this application by entry of these amendments. Entry of the above-amendments is respectfully requested.

The June 1 office action had rejected the claims as follows:

| Claims | Statutory Basis | Reference(s) |
|----------------|--------------------|---|
| 1, 2, 8, 11-19 | 35 U.S.C. § 102(b) | U.S. Patent Application No. 2003/0227774 to Martin et al. |
| 21 | 35 U.S.C. § 102(b) | U.S. Patent No. 5,984,495 to Chapman et al. (“Chapman”) |
| 9, 10 | 35 U.S.C. § 103(a) | Chapman in view of Martin |
| 20 | 35 U.S.C. § 103(a) | Chapman in view of Martin and U.S. Patent No. 6,053,623 to Jones et al. |
| 22-34 | 35 U.S.C. § 103(a) | Chapman in view of “Applicant’s admitted prior art” |

The rejections of claims 9-10, 19-20, 23, 27-29, 31 and 33 are now moot in light of their cancellation. The rejections of the remaining claims are respectfully

traversed, and the patentability of these remaining pending claims over these references is addressed below.

B. Claims 1-2, 8, and 11-18 are Novel over Martin

Applicant's claim 1 recites:

“1. Headlight device for a motor vehicle comprising
between 4 and 20 electroluminescent diodes
emitting visible luminous rays; and
at least one reflecting surface, to reflect
luminous rays produced by the
electroluminescent diodes into a luminous beam
having areas of range, breadth and comfort,
wherein each electroluminescent diode is
oriented in such a way that a totality of ray
propagation of the diode reaches, on the
reflecting surface, a specific area of reflection
which is dedicated to the diode, each specific
area being more specially intended to fulfill a
particular contribution of range, of breadth, or
of comfort in the production of the luminous
beam, and
wherein at least two of the electroluminescent
diodes are arranged relative to the reflecting
surface to provide a range contribution, at least
one of the electroluminescent diodes is arranged
relative to the reflecting surface to provide a
breadth contribution and at least one of the
electroluminescent diodes is arranged relative to
the reflecting surface to provide a comfort
contribution.”

Martin discloses a lamp with multiple light emitting diodes (LEDs).

Figure 2A of Martin (cited by the office action) shows a lamp (200) with a base (208) and a single LED source (210). [Martin, ¶¶42-44]. Martin discloses that any number of

LED sources (210) can be used in conjunction with this lamp, although only one is shown in that figure. [Martin, ¶44].

As discussed in the preliminary amendment submitted April 27, 2006, Martin treats his diodes and reflectors as a unit that together forms a particular pattern, and thus Martin fails to disclose that the diodes and reflecting surface and configured so that specific areas of the reflecting surface contribute to the three aspects of the luminous beam (e.g., range, breadth, or comfort). [See pages 12-13].

The office action apparently does not disagree with this interpretation of Martin and asserts that Martin's LED sources provide a range contribution:

“Applicant argues that MARTIN is distinguishable because MARTIN only contributes to a single pattern. Notably, Applicant claims the listed patterns in the alternative. As such, Examiner has selected one of the listed patterns and applied it as noted by Applicant, i.e., a single far-field pattern.... [I]t is undisputed that the MARTIN reflector provides a surface area of a reflecting surface intended for contributing to range/distance.”
[6/1/06 Office Action at pp. 8-9].

From reading this passage, it appears that the Office Action agrees that Martin's LEDs only contribute to a range aspect of the beam.

Later in the office action, however, a different interpretation of Martin is espoused that it allegedly also discloses contributions to breadth and comfort:

“Notably, Examiner utilizes the common, ordinary meaning associated with the terms ‘range, breadth and comfort.’ It is the Examiner's position that *all of the MARTIN*

*LEDs contribute to range/distance,
breadth/width and comfort/visibility.*” [6/1/06
Office Action at p. 9 (emphasis added)]

Without agreeing with that interpretation of Martin, Applicant notes that the office action argues that all of the Martin LEDs contribute to all three aspects of the beam (i.e., range, breath and comfort). The Office Action does not assert that certain of Martin’s LEDs contribute to a first aspect of the beam, others of Martin’s LEDs contribute to a second aspect of the beam, and still others of Martin’s LEDs contribute to a third aspect of the beam. That disclosure simply is missing from Martin. Accordingly, Martin fails to teach, disclose or suggest “wherein at least two of the electroluminescent diodes are arranged relative to the reflecting surface to provide a range contribution, at least one of the electroluminescent diodes is arranged relative to the reflecting surface to provide a breadth contribution and at least one of the electroluminescent diodes is arranged relative to the reflecting surface to provide a comfort contribution” as recited in Applicant’s claim 1.

We note that the Office Action has previously taken issue with the “adapted to” language in some of the claims, and argued that such language “does not constitute a limitation in any patentably sense.” [6/1/06 Office Action at p. 9]. With all due respect, such terminology is quite common in the mechanical arts. For example, in the USPTO database of issued patents, the undersigned found 89 separate issued patents reciting “adapted to” claim language in class 362, subclass 545 (the classification of this application as published) alone. Numerous courts have construed such “adapted to”

claim language as a structural feature of the claimed invention. See, e.g., *Gamma-Metrics Inc. v. Scantech Ltd.*, 52 USPQ2d 1568 (S.D. Cal. 1998) (construing “an elongated passageway adapted to contain said bulk substance”); and *Freeman v. Minn. Mining and Mfg. Co.*, 9 USPQ2d 1111 (D. Del. 1988) (construing “buoyancy means adapted to extend within at least one of the anterior and posterior chambers”).

In any case, pending claim 1 does not involve such “adapted to” language and expressly recites that the diodes “are arranged relative to the reflecting surface to provide” the various contributions.

Accordingly, Applicant respectfully suggests that independent claim 1 is novel over Martin. Independent claim 13 and dependent claims 2, 8, 11-12 and 14-18 also are novel over Martin for at least similar reasons.

C. Claim 21 is Novel Over Chapman

Applicant’s claim 21 recites as follows:

“21. Headlight device for a motor vehicle comprising
at least one luminous source configured to emit visible luminous rays; and
at least one reflecting surface disposed to receive and configured to reflect luminous rays produced by the at least one luminous source into a luminous beam having areas of comfort, of breadth, and of range,
wherein the at least one luminous source comprises (i) at least one element of an electroluminescent diode type disposed relative to the at least one reflecting surface to provide luminous rays for the areas of comfort or of breadth, and (ii) an element of a halogen-lamp

type or of a discharge-lamp type disposed relative to the at least one reflecting surface to provide luminous rays for the areas of range, and wherein the element of the electro-luminescent diode type and the element of the halogen-lamp type or of the discharge-lamp type are operated simultaneously to provide the luminous beam.”

Chapman relates to a *Dual Spectrum* Illumination System (DSIS) for use as a landing light on an aircraft. This system has a first source (i.e., halogen bulb) that provides a visible beam, and a second source (LEDs) that provides a beam in another region of the spectrum.

The office action argues that Chapman’s high power OD669 light emitting diodes (28) and OD50L light emitting diodes (32) correspond to the “at least one element of an electroluminescent diode type” recited in Applicant’s claim 21, and that Chapman’s halogen bulb (36) corresponds to the “element of the halogen-lamp type or of the discharge-lamp type” recited in Applicant’s claim 21.

The significance of a second source (i.e., the LEDs) is explained by Chapman:

“The pilot can select to perform a normal landing by activating the halogen lamp, or he can decide to perform a covert landing by turning on the second spectra. For example, the LED ring can be populated by high power infrared light emitting diodes (‘LED’). LED light is invisible to the naked eye and night vision goggles must be used to see. The aircraft may land with the invisible landing light and cause minimal disturbance to the native

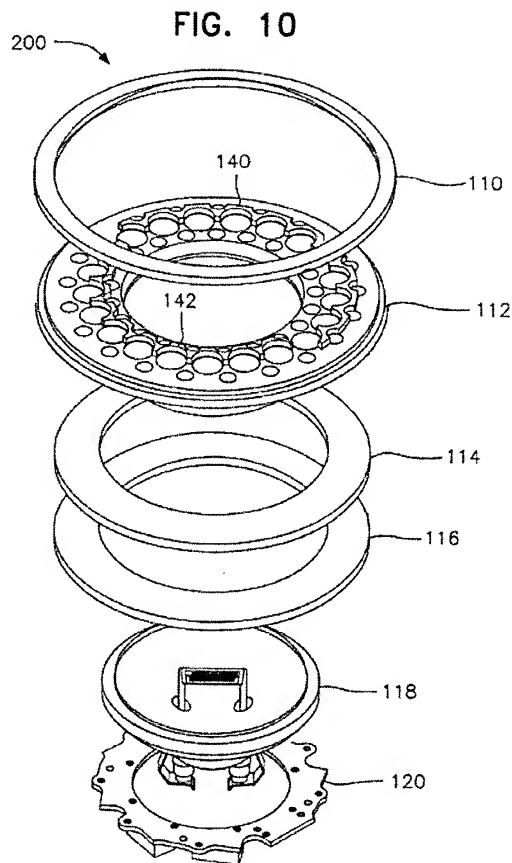
population at the landing site.” [Chapman, 2/21-29].

Thus, the two sources of Chapman are alternative sources of light and are not intended to be operated simultaneously. In other words, Chapman teaches that either the LED ring is on, or the halogen bulb is on – but not both.

Accordingly, a first deficiency in Chapman is that it fails to teach, disclose or suggest “the element of the electro-luminescent diode type and the element of the halogen-lamp type or of the discharge-lamp type are operated simultaneously to provide the luminous beam” as recited in Applicant’s claim 21.

Another deficiency in Chapman is that these two alleged light sources do not contribute to the three aspects of the luminous beam recited in Claim 21 (i.e., areas of comfort, of breadth, and of range). In this regard, the office action asserts – without support – that the halogen bulb (36) emits light for the area of range, and also asserts that the LEDs (28, 32) “are set aside for the areas of comfort.” [6/1/06 Office Action at pp. 4-5]. For this latter assertion, the office action relies on the passages of Chapman at column 6, line 42 through column 7, line 21. As explained below, that assertion is simply incorrect.

The cited passages of Chapman relate to the embodiment shown in Figure 10 (reproduced below):



In this system (200), the amount of infrared light that reaches the cockpit is reduced through the use of shields (140, 142). [6/32-36; Figure 11].

The passage at column 6, lines 42-52 explains infrared light from the LEDs (128, 132) is directed away from the cockpit:

“Shields 140, 142 are particularly useful in conjunction with lenses 134, which direct and focus light emitted by LEDs 128, 132, in order to direct light away from the cockpit. Nevertheless, the lenses 134 themselves, which preferably are fitted in, and protrude slightly from receptacle 142 (as shown in FIG. 12), still leak some infrared light that reaches the cockpit. The combined use of lenses 134 and

shields 140, 142 significantly reduces the amount of light that impinges on the cockpit.”

The passage at column 6, lines 53-67 explains more specifically the structure of the shields (140, 142) and their placement relative to the airplane wing, but does *not* disclose that the light from the LEDs (128, 132) is set aside for the areas of comfort:

“The shields 140, 142 cooperate to block and otherwise collimate infrared light emitted by LEDs 128, which are fitted in the middle tier or ring of receptacles 146. The system 200 is then mounted, for instance, on the underside of an airplane wing, so that the inner shield 140 is toward the body of the aircraft (not shown), which is generally indicated by arrow A, and especially faces the cockpit. The inner shield 140 preferably encompasses the receptacles 146 that are located closest to the cockpit. More particularly, inner shield 140 is scalloped to encircle one-half of nine receptacles 154 and one-quarter of two additional receptacles 156. Similarly, the outer shield 142 is scalloped to encompass one-half of the ten receptacles 158 that are located furthest from the body of the aircraft. Thus, the outer shield 142 will be nearer to the tip of the wing (as indicated generally by arrow B), and the inner shield 140 will be nearer the body of the aircraft.”

The passage at column 7, lines 1-12 explains that the shields (140, 142) help to reduce glare in the cockpit by redirecting the light but, yet again, does *not* disclose that the light from the LEDs (128, 132) is set aside for the areas of comfort:

“The shields 140, 142 thus reduce the amount of light that progresses toward the cockpit by blocking or otherwise re-directing light emitted

from LEDs 128. This reduces the glare of infrared light encountered by night vision devices. Preferably, the shields 140, 142 are only used to block light emitted by LEDs 128, since those emit the greatest amount of infrared light. LEDs 132, on the other hand, do not output a significant amount of infrared light, and do not significantly affect the use of night-vision devices. However, additional shields may also be provided about receptacles 144, 148 in order to reduce the amount of infrared light emitted by LEDs 132 that reaches the cockpit.”

Thus, there is absolutely no support in Chapman that the shields do anything other than redirect light away from the cockpit of the airplane. There is no specific discussion of where the light is redirected. There certainly is no teaching that the redirected light from the LEDs (28, 32) is set aside for the areas of comfort.

Accordingly, a second deficiency in Chapman is that it fails to teach, disclose or suggest “at least one element of an electroluminescent diode type disposed relative to the at least one reflecting surface to provide luminous rays for the areas of comfort or of breadth” as recited in Applicant’s claim 21.

Accordingly, Applicant respectfully suggests that independent claim 21 is novel over Chapman. Claims 22, 24-26, 30, 32 and 34 (which depend from claim 21) also are believed to be patentable over Chapman for at least similar reasons.

In connection with previously pending claims 22-34, the June 1 Office Action relied upon so-called “admitted prior art.” Without belaboring the point, since it is not necessary to establish the patentability of these claims, Applicant does *not* agree

the Office Action's interpretation of these purported admissions. For example, the office action asserts that "Applicant admits that variable visible intensity zones are known... Applicant states that these zones are provided for the purpose of providing optimum visibility based on distance." [6/1/06 Office Action at p. 7 (citing to paragraph 23 of Applicant's disclosure)]. However, this paragraph – nor the balance of Applicant's disclosure – does not disclose that these distinct zones provide "optimum visibility" as alleged by the Office Action. In any case, dependent claims 22, 24-26, 30, 32 and 34 are believed to be patentable over Chapman for at least similar reasons as claim 21 is allowable.

Applicant has chosen in the interest of expediting prosecution of this patent application to distinguish the cited documents from the pending claims as set forth above. These statements should not be regarded in any way as admissions that the cited documents are, in fact, prior art. Likewise, Applicant has chosen not to swear behind Martin. Applicant, however, reserves the right, as provided for by 37 C.F.R. § 1.131, to do so in the future as appropriate.

Finally, Applicant has not specifically addressed the rejections of the dependent claims. Applicant respectfully submits that the independent claims, from which they depend, are in condition for allowance as set forth above. Accordingly, the dependent claims also are in condition for allowance. Applicant, however, reserves the right to address such rejections of the dependent claims in the future as appropriate.

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CONCLUSION

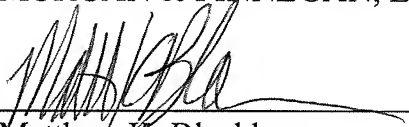
For the above-stated reasons, this application is respectfully asserted to be in condition for allowance. An early and favorable examination on the merits is requested. In the event that a telephone conference would facilitate the examination of this application in any way, the Examiner is invited to contact the undersigned at the number provided.

THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED FOR THE TIMELY CONSIDERATION OF THIS AMENDMENT UNDER 37 C.F.R. §§ 1.16 AND 1.17, OR CREDIT ANY OVERPAYMENT TO DEPOSIT ACCOUNT NO. 13-4500, ORDER NO. 1948-4838.

Respectfully submitted,
MORGAN & FINNEGAN, L.L.P.

Dated: November 3, 2006

By: _____


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